Chapter 4

The Vital Substances: Qì, Xuè, Jīn-Yè, Jīng and Shén

Goals of this chapter
Explain the concepts and functions of the Vital Substances.

Learning Goals
After this chapter you have to be able to:

- explain the following concepts:
  - Qì
  - Xuè – Blood
  - Jīn-Yè – Fluids
  - Jīng – Essence
  - Shén – Spirit
  - Xiān Tiān Jīng – earlier heaven essence
  - Hòu Tiān Jīng – later heaven essence
  - Yuán-Qì – source Qi
  - Gǔ-Qì – food Qi
  - Kōng-Qì – Air
  - Zōng-Qì – chest Qi or gathering Qi
  - Zhēn-Qì – true Qi
  - Wèi-Qì – defensive Qi
  - Ying Qi – constructive Qi or nutritive Qi
  - Hún – ethereal soul
  - Pò – corporeal soul
  - Yì – thought
  - Zhi – will power
- explain functions of Qi, Wēi-Qì, Xuè, Jīn-Yè, and Jīng
- explain how Qi, Xuè, Jīn-Yè, Jīng and Shén are formed
- explain the relationship between Qi and Xuè
- explain the relationship between Jīn-Yè and the organs, Jīn-Yè and Qi, and Jīn-Yè and Xuè
- explain the different forms of Shén and their relationship with organs

Introduction
Traditional Chinese Medicine (TCM) describes the human body completely different than Western Medicine (WM) does. The point of view of TCM is one of correspondences, mutual relationships, and different levels of energies in the body. WM has a biochemical view.

The vital substances describes in this chapter are used in TCM for describing the functioning of our body in detail.

Assignment
Read chapter 3 and 4 of The Foundations of Chinese Medicine (G. Maciocia). Study the different models below and write in your own words what this model tells you. Add comments of your teacher to the models.
Qi in Chinese Philosophy

“vapour”, “steam”, “gas”

(uncooked) “rice”

“as steam produced by cooking rice”

Qi has different densities.

Qi in Chinese Medicine

Heaven-Qi

union

Earth-Qi

manifests in

Different forms
Two aspects relevant to medicine:

- Qi is an energy which manifests simultaneously on a physical and spiritual level;
- Qi is in a constant state of flux and in varying states of aggregation. When Qi condenses, energy transforms and accumulates into physical shape.

Two major aspects of Qi:

- Qi = refined essence produced by internal organs. Function(nourishing body and mind)
- Qi indicates functional activity of internal organs, e.g. Gān-Qì ≠ portion of Qi residing in Gān. Gān-Qì = complex of functional activities. → ensuring smooth flow of Qi.

Various forms of Qi

- Yuán-Qì = Source points
- Shèn-Qì = functional activity of all organs
- Xīān-Tiān Jing = Hou Tian Jing
- Zōng-Qì to Zhen-Qì (Shèn participate in the production of Qi)
- Xuè (in Xīn)
- Gū-Qì = “Qi of food”, “Qi of grains”.
  - as transformed from
  - sends upwards (to the chest)
  - Gū-Qì means: "Qi of food", "Qi of grains".

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Area where Zōng-Qì collects in chest is called “Sea of Qì”. The controlling point is Shānzhōng CV-17 (Ren-17).

Zōng-Qì is also treated via Heart and Lung channels and by breathing exercises.

Zōng-Qì affected by emotional problems.

Zōng-Qì flows downwards to aid Shèn-Kidneys.

Yuán-Qì flows upwards to aid respiration.

Zōng-Qì is also called: “Chest-Qì” (Xiōng-Qì) or “Big-Qì” (Dà Qì).

This Qì is activated by acupuncture. It is interior and it nourishes.

It flows in blood vessels and channels.

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**Relationship between the various forms of Qi**

- **Wei-Qi**
  - spread outwards
  - nourished by
  - has root

- **Shang Jiao (Fèi)**
- **Zhong Jiao (Pí, Wèi)**
- **Xia Jiao (Shèn)**

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**Zhong-Qi** - Is Qi of Pí and Wèi, or Hòu Tiān Qi derived from food.

If Pí-Qi Xū gives rise to prolaps of an organ, then can be due to Zhong-Qi Xū.

**Zhèng Qi** - is the active aspect of all components including Zàng-Fǔ, Xuè, Jīn-Yè, Jing and various forms of Qi in maintaining health and resisting disease (protecting the body from invasion by exterior pathogenic factors). It indicates the body’s resistance to pathogenic factors.

**Xié-Qì** – different types of evils. For example exterior pathogenic factors. These attack the body.

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**Basis functions of Qi**

The basic functions of Qi are:

- transforming
- transporting
- protecting
- holding
- raising
- warming

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Transforming function

- Pi-Qi transforms Food
- Xin-Qi transforms Gu-Qi
  - into Xue

Transporting function

- Pi-Qi transports Gu-Qi
- Fei-Qi transports Qi downwards
- Shen-Qi transports Qi upwards
- Gan-Qi transports Qi in all directions
- Fei-Qi transports Fluids to Skin

Protecting function

- Fei-Qi protects Body
  - from Exterior pathogenic factors
Holding function

- **Lung-Qì** holds → **Sweat**
- **Shèn-Qì** holds → **Urine**
- **Pí-Qì** holds → **Xuè** (in Blood Vessels)

Raising function

- **Pí-Qì** raises (strengthen) → **Organs**
- **Shèn-Qì** rises → **Upwards**

Warming function

A function of Yáng-Qì.

- **Pí-Yáng** warming → **Body**
- **Shèn-Yáng**

**Direction of movement of Qi**

- Normal physical function of Zàng-Fǔ and various types of Qi rely on Complex balance
  - among Zàng-Fǔ
  - Yin-Yáng character of Qi
  - Direction of Qi movement

The various types of Qi have to flow in the appropriate directions. This is called "Ascending-descending and exiting-entering" in Sù Wèn chapter 68.

Examples are:
Xīn – Shèn

- Xin-Huo rises to meet
- Water of Shèn
- Shèn-Shui

Pí – Wèi

- Pí sends upwards to met
- Fèi sends downwards to met
- Clear Qì
- Wèi sends downwards to met
- Impure Qì
- Transforming
- Fèi
- Xin
- Controls Clear Qì
- Controls Impure Qì

- Ascending clear Qì depends on Ascending of Pí-Qì
- Descending impure Qì depends on Descending of Wèi-Qì

Fèi

- Fèi controls descending of Qì
- Fèi directs downward Qì to
- Shèn, Páng Guāng
- Inhale Clear Qì
- Exhale Impure Qì

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Gān

Pathology of Qì

Qì Xū – Qì deficiency: mainly Fèi, Pí, and Shèn.
Qì Xiàn – Qì sinking: sub type of Qì Xū. Applies mostly to Pí-Qì.
Qì Ni – Qì counterflow: a reversal of the normal direction of the flow of Qì.

Xuè – Blood

Xuè is a denser form of Qì.
**Function of Xuè**

- *nourishing*
  - Body
- *moistening*
  - Eyes + Sinews
  - Tongue
- *material foundation of (anchors)*
  - Shén-Mind

Xuè is Yin in nature.

**Xuè and Zàng-Fǔ**

It is important to understand what the relation is that Xuè has with different organs.

The following organs are discussed:
- Xin
- Pí
- Gǎn
- Fèi
- Shèn
Xīn

\[ Xīn \quad \text{governs} \quad \rightarrow \quad Xūè \]
\[ Xīn-Huŏ \quad \text{makes} \quad \rightarrow \quad Xūè \]
\[ \text{with help of} \quad \uparrow \quad \text{responsible for} \quad \downarrow \quad \text{regulation of} \]
\[ \text{Blood Vessels} \]

Fire = Yáng \quad \text{transforms into} \quad Xūè = Yīn

Pí

\[ Pí \quad \text{origin of} \quad \rightarrow \quad Xūè \]
\[ \text{keeps} \quad \downarrow \quad \text{in} \quad \uparrow \quad \text{produces} \quad \text{basis for} \quad \text{formation of} \]
\[ \text{Blood Vessels} \]
\[ Gū-Qī \]

Gān

\[ Gān \quad \text{stores} \quad \rightarrow \quad Xūè \]
\[ \text{regenerates in} \quad \uparrow \quad \text{Gān stores} \quad \text{Xūè has relation with physiology and pathology of menstruation.} \]

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Shēn and Gān have a common origin:

Fèi

Assist pushing function of Xīn
Shèn

To summarize

The Xuè-Qì relationship
Qì = Yáng and Xuè = Yīn.

There are four aspects to the Xuè-Qì relationship. These are:
- Qì generates Xuè
- Qì moves Xuè
- Qì holds Xuè
- Xuè nourishes Qì
The first three aspects of this relationship are often expressed in the saying: "Qi is the commander of Xuè."

**Qi generates Xuè**

![Diagram showing Qi generating Xuè]

If Qi → Xuè. It is often necessary to tonify Qi in order to tonify Xuè.

**Qi moves Xuè**

![Diagram showing Qi moving into Blood Vessels]

When Qi moves, Xuè follows.

If Qi stagnates, Xuè congeals.

**Qi holds Xuè**

![Diagram showing Qi holding Xuè in Blood Vessels]

Primarily done by Pi-Qì.

**Xuè nourishes Qi**

Xuè prevents Qi from 'floating'.

This aspect is often expressed in the saying: "Xuè is the mother of Qi."
Xuè-Jīng relationship

Xuè pathology
1. Xuè Xū – mostly caused by Pí-Qì Xū.
2. Xuè-Rè – mostly due to Gān-Rè.
3. Xuè Yū – caused by Qì Zhi, Rè and by Hán.

Jīn-Yè – Body Fluids

Assignment
Read the section on Body Fluids of The Foundations of Chinese Medicine (G. Maciocia).
Types of Jīn-Yè

Actually there is Jīn and there is Yè. The table below shows the main differences.

<table>
<thead>
<tr>
<th>Jīn (fluids)</th>
<th>Yè (liquids)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear</td>
<td>Turbid</td>
</tr>
<tr>
<td>Light</td>
<td>Heavy</td>
</tr>
<tr>
<td>Thin-watery</td>
<td>Dense</td>
</tr>
<tr>
<td>Circulates with Wèi-Qì (defensive) on exterior</td>
<td>Circulates with Ying-Qì in the interior</td>
</tr>
<tr>
<td>Moves relatively quickly</td>
<td>Moves relatively slowly</td>
</tr>
<tr>
<td>Function: moisten and nourish skin and muscles.</td>
<td>Function: moisten spine, joints, brain and bone marrow.</td>
</tr>
<tr>
<td>Sweat, tears, saliva, mucus. Component of fluid part of Xuè.</td>
<td>Lubrication of orifices of sense organs (eyes, ears, nose, mouth).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Jīn</th>
<th>Sense organ</th>
<th>Fluid of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tears</td>
<td>eyes</td>
<td>Gàn</td>
</tr>
<tr>
<td>Sweat</td>
<td>pores</td>
<td>Xin</td>
</tr>
<tr>
<td>Watery saliva (xian)</td>
<td>mouth</td>
<td>Pi</td>
</tr>
<tr>
<td>Nasal mucus</td>
<td>nose</td>
<td>Fèi</td>
</tr>
<tr>
<td>Mucoid saliva (tuo)</td>
<td>-</td>
<td>Shèn</td>
</tr>
</tbody>
</table>

Source: S. Clavey, Fluid physiology and pathology in Traditional Chinese Medicine.

Source and Transformation of Jīn-Yè

1. by Fèi's spreading + descending function
2. via Sān Jiăo and Shèn channel
3. Steaming action does separation
**Jīn-Yè and Zàng-Fǔ**

**Jīn-Yè and Pí**

<table>
<thead>
<tr>
<th><strong>Pí</strong></th>
<th>controls transformation and separation into</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pure &amp; Impure part</td>
</tr>
<tr>
<td></td>
<td>Pure upwards</td>
</tr>
<tr>
<td></td>
<td>Impure downwards</td>
</tr>
<tr>
<td></td>
<td>All stages of Jīn-Yè production!</td>
</tr>
</tbody>
</table>

Most important in relation to physiology and pathology of Jīn-Yè.
Disorders of Jīn-Yè → treat Pí.

**Jīn-Yè and Wèi**

“Source” of Jīn-Yè.
Wèi likes to be moist. Pí likes dryness.
Dry-foods for a long time may damage Wèi-Yīn.

**Jīn-Yè and Fèi**

<table>
<thead>
<tr>
<th><strong>Fèi</strong></th>
<th>controls dispersion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>of Pure part of Jīn-Yè</td>
</tr>
<tr>
<td></td>
<td>to Space under skin</td>
</tr>
<tr>
<td></td>
<td>sends Fluids</td>
</tr>
<tr>
<td></td>
<td>down to Shèn Páng Guāng</td>
</tr>
</tbody>
</table>

Regulate “Water Passages”
Jīn-Yè and Shèn
This is a very important relationship.

1. **Shèn-Yáng** controls Many stages of fluid transformation
   
   provides Heat
   
   Pí function (transform Jīn-Yè)

2. **Shèn-Yáng** assists Xiao Cháng function (separation of Jīn-Yè in pure and impure)

3. **Shèn-Yáng** provides to Qì
   
   Páng Guăng function (Qì transformation)
   
   i.e. send pure upwards, urine downwards with help of Shèn-Yáng.

4. **Shèn-Yáng** assists Sān Jiāo function (transformation + excretion of fluids)
Jīn-Yè and Páng Guāng

Jīn-Yè and Sān Jiāo

Sū Wèn chapter 8: “The Sān Jiāo is the official in charge of irrigation and it controls the water passages”
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Relationship Qi and Yīn-Yè

Qi

transforms + transports

Jīn-Yè

holds in

produces

Shèn-Qì Xū → incontinence, enuresis.
Fèi-Qì Xū → spontaneous sweating.
Pí-Qì Xū → chronic vaginal discharges.

Profuse sweating → Qì Xū, loss of Wèi-Qì, injures Yáng.
Persistent vomiting → depletes Qì.
Qì Xū → sweating.

Relationship Xuè and Yīn-Yè

Xuè

replenishes & makes thinner

Jīn-Yè

nourish & supplement

Does not coagulate or stagnate

Excessive use of saunas → Xuè Xū.
Chronic blood loss → Jīn-Yè Xū.

Pathology of Jīn-Yè
1. Jīn-Yè Xū
2. Jīn-Yè Xū accumulation in the form of oedema or Tán-Yīn (Phlegm-Rheum).
**Jīng – Essence**

Person’s basic constitution: - strength - vitality Is unique!

- Quantity
- Quality

### Parents

Passed through by

- Jing

Parents

- Xǐān Tiān Jīng

In context of

- Hòu Tiān Jīng

In context of

- Shèn-Jīng

Jīng as basis of Shèn-Qì

- Jing produces Sui-Marrow
- Jing as basis of Shèn-Qi
- Jing as the basis of constitutional strength

- Growth, reproduction, development

- Brain, fills Spinal Cord, Bone marrow.

See next model

- Resistance to exterior pathogenic factors.

### Differences between Qi and Jīng

<table>
<thead>
<tr>
<th>Qi</th>
<th>Jīng</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shèn-Yīn, Shèn-Jīng</td>
<td>Shèn-Yīn, Shèn-Jīng</td>
</tr>
<tr>
<td>(the steam)</td>
<td>(soup in cauldron)</td>
</tr>
<tr>
<td>Shèn-Yàng (and Míng Mén)</td>
<td>Shèn-Yàng (and Míng Mén)</td>
</tr>
<tr>
<td>(fire under cauldron)</td>
<td>(fire under cauldron)</td>
</tr>
</tbody>
</table>

Result of the heating of Shèn-Yīn by Shèn-Yáng.

Shèn-Jīng = fluid-like = Yīn = aspect of Shèn-Yīn. Shèn-Jīng is the material basis for this “soup”.

Heating function
Formed after birth | Derived from parents
---|---
Energy like | Fluid like
Everywhere | Mostly in Shén
Easy to replenish | Difficult to replenish
Short cycles (yearly or shorter) | Long cycles (7 or 8 years)
Changes quickly from moment to moment | Changes gradually and slowly.

**Problems when Jing Xu**

| Growth, reproduction, development | Poor bone development, stunted growth in children, infertility, habitual miscarriage, mental retardation in children, bone deterioration in adults, loose teeth, hair falling out or greying prematurely. |
| Jing as basis of Shén-Qì | Impotence, poor sexual function, weakness of knees, nocturnal emissions, tinnitus, deafness. |
| Jing produces Sui-Marrow | Poor memory, poor concentration, dizziness, tinnitus, feeling of emptiness in head. |
| Jing as basis of constitutional strength | Constantly prone to colds, influenza, other exterior diseases, chronic rhinitis, allergic rhinitis (hay fever). |

**Shén – spirit, mind**
Currently under development.

**Sān Bāo – three treasures**
In Daoism Jing, Qi and Shén are called the Sān Bāo – the three treasures or the three gemstones. These three determine the internal world of every individual. The Sān Bāo are unique for every individual and are a constitutional micro cosmos which forms a natural opposite of the creative forces of the universe: earth, human, heaven.

**Knowledge test**
1. Compare the main functions of Qi and Xuè. What are the important differences and similarities?
2. What is the function of Yuán Qi?
3. What is the role of Shén-Kidneys in the transformation process? Indicate which aspect or which manifestation of Shén-Kidneys is responsible for what process.
4. What is the difference between Zōng-Qì and Zhōng-Qì?
5. What is the difference between Zhēn-Qì and Zhèng-Qì?
References
Sù Wèn chapter 1, 3, 4, 5, 8, 23, 68.
Líng Shū chapter 28, 30, 36.
Nàn Jing chapter 4.

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Maoshing Ni, Ph.D.; *The Yellow Emperor's Classic of Medicine*, Shambala, 1995